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STATE OF BRUNEI



ANNUAL REPORT

OF THE

MEDICAL DEPARTMENT

FOR THE YEAR

1939

BY

S. J. CAMPBELL,
Medical Officer, Brunei.

Published by Authority.

SINGAPORE :

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ANNUAL REPORT OF THE MEDICAL DEPARTMENT, BRUNEI FOR THE YEAR 1939

I.—INTRODUCTION

Brunei is a small State on the north-west coast of Borneo, having an area of 2,226 square miles, approximately one-tenth the size of Ceylon. The indigenous population is composed of Brunei Malays, Kedayans, Tutongs, Belaits, Dusuns, Dayaks and Muruts. The only alien race present in appreciable numbers is the Chinese.

The population is, with two exceptions, Brunei Town and Kuala Belait, scattered over the State in very small groups. The Bruneis, being mostly fisher-folk, keep to the large rivers. The other races, of which the Kedayans predominate, are on the whole agriculturists and are found in small communities over the whole State.

The largest grouping in the State occurs in the famous River Kampong—the original Brunei Town. Here, about one-third of the total population is aggregated into a picturesque collection of houses resting on wooden piles driven into the mud flats of the river. Many of the older women in this town have never walked on land. Rivers afford the chief means of transport, but motor transport is becoming more possible and more popular.

The Sultan of Brunei is the ruler of the State. The general administration is discharged by the British Resident, whose advice must be acted upon in all questions save those which affect the Mohammedan religion.

II.—ADMINISTRATION

The Medical and Health Department of the State is administered by a Medical Officer of the Malayan Medical Service. This officer, in addition, performs the duties of Assistant Controller of Labour.

Dr. O. E. FISHER continued to fill the post until May, when he was relieved by Dr. S. J. CAMPBELL, who officiated until the end of the year.

Appendix I gives the details of the full establishment.

During the year a trained midwife, a pupil midwife and a female attendant were added to the establishment.

The revenue collected during the year was \$2,214.42 whilst \$57,724.30 were expended. In addition \$1,140 was spent on health work (Sanitary Inspector's salary), Kuala Belait and there was a capital outlay on buildings, etc. of \$2,676.67. This makes a total of \$61,540.97 spent on Medical and Health Services, equivalent to 5.21 per cent of the total expenditure of the State. The figures for 1938 were revenue collected \$3,088.93, expenditure \$64,051.03 representing 8.91 per cent of the total State expenditure.

III.—HOSPITAL AND DISPENSARIES

The centre of the Medical Department is the general hospital at Brunei Town. This is a small moderately well-equipped hospital with accommodation for 48 patients. The building of a new operating theatre and the installation of water-borne sanitation was commenced in the latter half of the year and should be finished early in 1940.

There are two small dispensaries, in the out-lying parts of the State, each with a dresser in charge. The British Malayan Petroleum Company maintains an efficient hospital at Kuala Belait. The Company's own Medical Officer is in charge. By agreement with the Government this officer performs the duties of Health Officer for the district and the hospital facilities are available to the public.

The total cost is shown in Appendix II.

Travelling Dispensaries tend the needs of the remotely situated population. Three dressers are engaged in this work. They operate from the General Hospital and the two out-station dispensaries at Tutong and Temburong. Travel is by motor, by boat and by foot.

During the year 760 cases were admitted to Government Hospitals and 19,573 cases were treated as out-patients as compared with 614 and 19,435 respectively in 1938.

IV.—CHILD WELFARE AND MATERNITY

The Child Welfare and Maternity Clinic at Brunei continued to be very popular. The number of infants attending was 3,297. The figure for 1938 was 1,957.

During the year Child Welfare and Maternity Clinics were opened at Kuala Belait and Seria. The attendances there have been satisfactory and it is felt a definite start has been well established in these areas. A trained midwife is in charge of these clinics and does the midwifery practice of the surrounding districts. The Medical Officer of the Oil Company's Hospital generally supervises the work.

The infant mortality rate was 232 per thousand live births. The following table shows the corresponding figures for the past five years :—

<i>Year</i>		<i>Total Births</i>	<i>Infant mortality rate</i>
1934	...	1306	355 per mille live births
1935	...	1475	210 „ „ „ „
1936	...	1454	374 „ „ „ „
1937	...	1472	219 „ „ „ „
1938	...	1431	210 „ „ „ „
1939	...	1830	232 „ „ „ „

Dietetic deficiency and insufficiency coupled with improper methods of infant feeding are the main causes of this high mortality. Ignorance and dread of leaving the infants in hospital allow one to see only too frequently an infant, marasmic from improper feeding, being taken back to its home for the killing process to be completed.

The Maternity Service is still doing most useful and increasing work. It is now thought that all births in the Brunei Town and River Kampong area are delivered by Government midwives.

The Department attended 715 births during the year. An increase of 175 over 1938. There were no deaths due to child birth during the year.

In the outlying districts, where native midwives hold sway, there were 15 deaths.

Details are given in Appendix V.

During the year 235 expectant mothers attended the ante-natal clinic. Of this number 71 were expecting their first baby.

The Health Nurse commenced a regular weekly itinerary of the Kampongs in the river. The number of cases, treated or given advice in this manner was 1,250. All these visits are done in a small boat rowed by two men. Much time is spent on the journey and it is felt that this can be overcome by the use of a small, shallow-draught, out-board motor-boat.

V.—PRISONS

The health of all prisoners in the State was good during the year.

VI.—PUBLIC HEALTH

(a) HOUSING

In the main centres of population Sanitary Boards control all matters relating to housing, sanitation, etc. On the whole the housing in these areas is satisfactory.

Native houses require constant supervision to prevent accumulations of refuse in their vicinity. They are usually of the two-roomed type, built on piles, except in the case of certain races which have large communal houses. Overcrowding is very marked even in the Sanitary Board areas. Steps are being taken gradually to lessen this unnecessary evil.

(b) SANITATION AND REFUSE DISPOSAL

In the Sanitary Board areas night soil is collected in buckets and dumped from a barge into a convenient tidal river. Bore-hole latrines are made where possible for the native houses on land. Nineteen of this type were constructed by the Health Department during the year.

Water-borne sanitation is increasing and a public latrine with this method of disposal was under construction in Brunei Town at the end of the year.

Street and domestic refuse is collected and disposed of by incineration or dumping into tidal rivers.

(c) WATER SUPPLY

In Brunei the river population obtains its water from a number of hill streams *via* small gauge pipes emptying into the river. The town supply is obtained from a small reservoir. The catchment area is not satisfactory and contamination probably occurs. Action is being taken to supply proper purification facilities.

Kuala Belait residents obtain their water from the British Malayan Petroleum Company. Tutong and Temburong have piped water supplies also. Elsewhere water is obtained from shallow wells and streams.

(d) FOOD ANIMALS

All cattle, pigs, etc. slaughtered in Brunei and Kuala Belait are inspected. During the year 84 cattle, 440 buffaloes, 67 goats and 1,716 swine were slaughtered. Five pigs were rejected for slaughter on account of disease.

Toward the end of the year a new buffalo slaughter house was started and will be ready for use in 1940. Plans for a new pig slaughter house are under consideration.

(e) ANTI-MALARIAL MEASURES

Regular anti-malarial work is only possible at Brunei, Kuala Belait and Seria and these places are kept free from the disease. In Brunei the area of control was extended during the year to include several places outside the Sanitary Board area. One thousand, nine hundred and sixty-five feet of new subsoil drains were constructed and 1,256 gallons of oil were used. In Kuala Belait and Seria the work is in the hands of the Assistant Resident who acts on the advice of the Oil Company's Medical Officer. The total cost of anti-malarial works in all supervised areas was \$6,397.81.

In rural parts of the State the distribution of free quinine is the only practical measure that can be carried out.

VII.—PREVAILING DISEASE

(a) MALARIA

One thousand and thirty-six cases of malaria were treated throughout the State by this Department compared with 763 cases in 1938. The increase has been general in all districts apart from the controlled areas but has been much more marked in the two outstations. This, I believe, is due to the extension of travelling dispensary services in these localities during the year. One hundred and eighty cases were admitted to Government hospitals with two deaths. One case of black-water fever was treated and made a good recovery. The main centres are kept free from malaria. There is also comparatively little malaria on the various rubber estates but it is exceedingly common in the rice growing areas. The commonest anophelines found in the rice fields are *A. kochi*, *A. barbirostris* and *A. leucosphyrus*.

A. maculatus was discovered breeding on two occasions in a small stream just outside the town of Brunei. This is only the second time that this anopheline has been reported in the State and it is unlikely that it is an important vector here.

Mosquito returns are given in Appendix VII. All school children are examined annually for enlarged spleens and treatment is given where necessary. Spleen rates are shown in Appendix IV.

The rates vary from nil to 69.51 per cent. All rates higher than 10 per cent were obtained from schools in padi growing areas. The rate for school children throughout the State was 6.84 per cent.

(b) HELMINTHS

Ascaris infection is exceedingly common. All school children were examined once during the year and mass treatment given. This cannot, however, have any marked effect on lowering the incidence of the disease until the sanitary arrangements of the native population improve.

Hookworm is much rarer.

Routine annual examination of all Government servants followed by treatment was started in the year under review.

Of the stools examined by the staff of the Medical Department in the State—*Ascaris* was found in 46.2% and *Ankylostoma* in 7.8%.

(c) DYSENTERY AND DIARRHOEA

There were nine cases of dysentery admitted to hospital during the year with no deaths. Infantile diarrhoea accounted for six admissions and one death.

(d) VENEREAL DISEASE

Gonorrhoea is fairly common, but comparatively few with the infection come for treatment. However, due to the efficacy of M. & B. 693 the number of cases attending hospital toward the end of the year was increasing.

Syphilis appears to be increasing in Brunei as more cases definitely infected in the State were seen than ever before.

(e) TUBERCULOSIS

Tuberculosis is prevalent especially amongst the Chinese. Eighteen cases were treated in hospital during the year with five deaths. The disease is usually advanced when the patient offers himself for treatment and the prognosis is almost invariably bad.

(f) DEFICIENCY DISEASES

The poor diet of the majority of the population is still an important cause of ill-health in the State. Its relation to the high infant mortality has already been stressed. Thirty-three cases in the Brunei hospital were admitted for nutritional disorders, of one sort or another representing 4.3 per cent of the total admissions. This is a decrease of 16 from 1938. Most of the symptoms of avitaminosis (A., B and C.) have been seen during the year.

(g) MENTAL DISEASES

There are no proper facilities for the care of mental patients in the State, and most cases are sent to Singapore. There were, on an average, six cases maintained in the Singapore Mental Hospital throughout the year and the cost to the State amounted to \$745.16.

In addition 10 cases of mental disorder were treated in Brunei Hospital.

(h) OTHER DISEASES

There are at present in the State two known lepers, both Chinese. They are advanced cases and are housed in a separate ward in Brunei Hospital. There were no new cases during the year.

VIII.—VITAL STATISTICS

The estimated population of the State on 31st December was 39,387 as against 37,868 in 1938. Births totalled 1,830 and deaths 1,150 giving a birth rate of 46.46 per mille and a crude death rate of 29.20 per mille. In 1938 the birth rate was 37.79 and the crude death rate 22.00 per mille. The infant mortality rate was 232 per thousand live births compared with the corresponding figure of 210 in 1938.

Tables 2 and 4 of Appendix V show births and deaths by races.

Registration is probably fairly complete and the figures for births and deaths can be regarded as reasonably accurate.

Appendix V, table 3 shows causes of all deaths certified by registered Medical Practitioners.

IX.—ESTATES, ETC.

There are four European estates in the country and innumerable small native holdings. Records are only available of European estates where regular inspections are carried out. The general health during the year was good. There is surprisingly little malaria and dietetic diseases are definitely diminishing.

Estate labour consists almost entirely of Brunei natives, and is, for the most part, non-resident. The housing conditions of resident labour is satisfactory. Outlying estates each have their own dresser and small hospital. Serious cases are sent into Brunei. Estates near the town of Brunei make use of the Government hospital.

The largest employer of labour is the British Malayan Petroleum Company at Kuala Belait. This Company pays high wages and provides excellent housing conditions and other amenities for its labour. It also maintains a well equipped hospital in charge of a Medical Officer. Infant Welfare work continued to progress in this area.

X.—METEOROLOGY

The climate is of the tropical type and is characterised by a constant moist heat. The heat is usually tempered with a slight breeze and the temperature rarely exceeds 90° F. the usual daily range being between 76° F.—86° F. The annual rainfall is high and varies from 100 inches or more at the coast to over 200 inches in certain parts of the interior. The highest rainfall during the year was at Batu Apoi Estate where 241.74 inches were recorded.

S. J. CAMPBELL,
Medical Officer, Brunei.

APPENDIX I

STAFF OF THE MEDICAL DEPARTMENT, 1939

- (1) Medical Officer
- (2) Dresser (Special Appointment)
- (3) Dressers, Grade II, three
- (4) Dressers, Grade III, seven
- (5) Clerk, one
- * (6) Sanitary Inspectors, two
- (7) Mosquito Collector
- (8) Health Nurse
- (9) Staff Nurse
- (10) Nurse, Grade II, two
- (11) Probationer Nurse, one
- (12) Midwives, three
- (13) Pupil Midwife, one
- (14) Male Attendants, six
- (15) Female Attendants, four
- (16) Peon, one
- (17) Cooks, three
- (18) Gardeners, two

APPENDIX II

		<i>Whole State</i>		<i>Medical Dept.</i>	
		\$	c.	\$	c.
Total Revenue	...	1,274,644	48	2,214	42
Total Expenditure	...	1,181,325	09	57,724	30

MEDICAL DEPARTMENT EXPENDITURE, 1930

A.—Personal Emoluments				27,250 42
B.—Annual Recurrent.				
Clothing and Uniforms	...	...	...	1,174 65
Laundry	...	...	...	475 00
Hospital Diets	...	...	...	3,787 07
Maintenance of Lunatics	...	...	...	745 16
Contingencies	...	...	...	370 51
Medicine and Instrument	...	...	...	10,242 25
Transport including Travelling Dispensary			...	1,428 90
Conveyance Allowance	...	...	...	665 16
Payment for extraneous Medical Services rendered by the British Malayan Petroleum Hospital, Belait	...	...	...	3,857 66
Health Work and Anti-Malaria—Brunei			...	4,207 15
Belait			...	2,190 66
Hospital Conservancy	...	...	...	330 20
Infant Welfare and Maternity Work, Belait			...	844 51
II.—Special Expenditure.				
Purchase of Safe	...	...	...	155 00
Total				57,724 30

* One Sanitary Inspector is on the establishment of the Assistant Resident at Kuala Belait.

APPENDIX III

TABLE I

Annual Return of the Infant Welfare Centre for the year 1939

<i>Diseases</i>					<i>No. of cases</i>
Infectious disease :					
(a) Influenza	...	...	...	...	194
(b) Malaria (all forms)	...	...	...	...	17
(c) Yaws (all forms)	...	...	...	...	3
Dysentery :					
(i) Amœbic	...	...	...	...	—
(ii) Bacillary	...	...	...	...	4
(e) Chicken pox	...	...	...	...	3
(f) Measles	...	...	...	...	3
(g) Mumps	...	...	...	...	1
(h) Pneumonia (all forms)	...	...	...	...	21
(i) Whooping cough	...	...	...	...	6
Nutritional disorders	...	...	...	...	163
Anæmia	...	...	...	...	4
Ear, eye, nose and throat :					
(a) Conjunctivitis (all forms)	...	...	...	...	40
(b) Tonsillitis	...	...	...	...	4
(c) Otorrhœa	...	...	...	...	8
(d) Otitis Media (all forms)	...	...	...	...	7
(e) Ophthalmia neonatorum	...	...	...	...	1
Respiratory disease	...	...	...	...	201
Gastro intestinal disorders	...	...	...	...	141
Helminthic infection :					
(a) Ascariasis	...	...	...	...	130
(b) Oxyuriasis	...	...	...	...	8
(c) Ankylostomiasis	...	...	...	...	2
(d) Hymenolepis nana	...	...	...	...	1
Violence (all forms)	...	...	...	...	31
Unclassified	...	...	...	...	2,304
Total				...	3,297
Total number of attendances				...	9,100

APPENDIX III—continued

TABLE 2

Record of Government Maternity Cases for 1939

Total number of maternity cases attended by Government nurses and midwives	...	...	...	...	715
Number of deliveries in hospital	...	...	...	...	46
Number of deliveries in home	...	...	...	...	669
Full term live births	...	...	...	...	688
Premature live births	...	...	...	...	10
Full term still births	...	...	...	...	7
Premature still births	...	...	...	...	3
Pairs of twins	...	...	...	...	7
Average weight of babies at birth	...	...	...	...	6 $\frac{3}{4}$ lbs.
Malformations (all forms)	...	...	...	...	8
Ante-natal cases	...	...	...	...	235
Ante-natal attendances	...	...	...	...	884
Diseases occurring in ante-natal period :					
(a) Hydramnios	...	...	...	...	1
(b) Hydatidiform mole	...	...	...	...	1
(c) Venereal disease :					
(i) Gonorrhœa	...	...	...	...	2
(ii) Syphilis	...	...	...	...	1
(d) Varicose veins	...	...	...	...	2
(e) Malaria (all forms)	...	...	...	...	6
(f) Anæmia	...	...	...	...	52
(g) Constipation	...	...	...	...	60
(h) Neuralgia	...	...	...	...	10
(i) Albuminuria	...	...	...	...	32
(j) Influenza	...	...	...	...	9
(k) Dyspepsia	...	...	...	...	8
(l) Ascariasis	...	...	...	...	6
(m) Beri-beri	...	...	...	...	14
(n) Lumbago	...	...	...	...	3
(o) FyELITIS	...	...	...	...	1
(p) Pregnancy insanity	...	...	...	...	1
(q) Retroverted gravid uterus with urinary retention	...	...	...	...	1
(r) Pyorrhœa alveolaris	...	...	...	...	2
(s) Spurious pains	...	...	...	...	4
(t) Oedema of legs	...	...	...	...	3
(u) Myalgia	...	...	...	...	4
(v) Scabies	...	...	...	...	3
Induction of labour	...	...	...	...	3
Breech deliveries	...	...	...	...	7
Occipito-posterior position	...	...	...	...	5
Complications of labour :					
(a) Ante partum hæmorrhage (concealed)	...	...	...	...	1
(b) Ante partum hæmorrhage (revealed)	...	...	...	...	1
(c) Post partum hæmorrhage	...	...	...	...	2
(d) Post partum hæmorrhage with retained placenta	...	...	...	...	1
(e) Secondary uterine inertia	...	...	...	...	2
(f) Maternal mortality due to cerebral malaria	...	...	...	...	1

TABLE 3

Table of Nationality of Maternity Cases

Malays	...	...	...	...	...	605
Chinese	...	...	...	...	...	96
Kedayans	...	...	...	...	...	7
Dusuns	...	...	...	...	...	1
Indians	...	...	...	...	...	1
Others	...	...	...	...	...	5
Total						715

APPENDIX IV

Table showing the results of Spleen and Stool Examination of School Children in 1939

Place	Number examined	Palpable Spleen	Spleen Rate %	Number of Stools examined	Ascaris	Infection Rate %	Ankylostoma	Infection Rate %
Brunei	561	8	1.43	455	282	61.98	1	.22
Gadong	23	16	69.57	34	31	91.18	..	..
Berakas	45	13	28.89	41	31	75.61	1	2.43
Kilanas	23	12	52.17	28	27	96.43	..	..
Sengkurong ..	35	22	62.86	38	38	100.00	..	..
Temburong ..	35	..	..	40	26	85.00	10	25.00
Labu	29	..	..	29	29	100.00	..	..
Muara	65	12	18.46	59	47	79.67	..	..
Tutong	96	1	1.04	94	60	63.83	..	..
Penanjong ..	36	4	11.11	39	30	76.92	..	..
Tempuan Ogas ..	28	2	7.14	29	21	72.41	..	..
Tanjong Maya ..	57	2	3.51	57	32	56.14	..	..
Lubok Pulau ..	22	..	..	22	4	18.18	..	..
Okong	24	1	4.17	37	16	43.24	..	..
Kuala Belait ..	275	2	.73	288	75	26.04	..	..
Labi	53	..	..	38	25	65.79	..	..
Bukit Sawat ..	49	7	14.29	41	8	19.51	..	..
Kuala Balai ..	22	1	4.54	16	1	6.25	..	..
Seria	85	1	1.18	68	28	41.18	..	..
Kiudang	49	8	16.33	48	22	45.83	..	..
Kariam	38	1	2.63	40	26	65.00	..	..
Total ..	1,650	113	6.84	1,541	859	55.74	12	.78

APPENDIX V

VITAL STATISTICS—TABLE I

Estimated Population with Birth and Death Rates

Year	Population	Births	Deaths	Birth-rate per mille	Death-rate per mille
1934	32,971	1,306	1,237	39.61	37.51
1935	33,732	1,475	802	43.70	23.78
1936	34,016	1,454	1,155	42.74	33.95
1937	35,963	1,472	722	40.09	21.47
1938	37,868	1,431	833	37.79	22.00
1939	39,387	1,830	1,150	46.46	29.20

APPENDIX V—continued

TABLE 2

Births Registered according to Sex and Nationality

Euro-peans		Eura-sians		Chinese		Malays		Indians		Native Bornean Races other than Malays		Others		Total		Total
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
..	3	155	125	464	404	7	6	345	310	5	6	976	858	1,830

TABLE 3

Deaths from Principal Causes, year ending 31st December, 1939

<i>Diseases</i>				<i>Male</i>	<i>Female</i>	<i>Total</i>
Malaria	...	...	...	5	2	7
Meningitis	...	...	...	1	1	2
Tetanus	...	...	...	—	—	—
Enteric fever	...	...	...	—	—	—
Dysentery	...	...	...	4	4	8
Septicæmia	...	...	...	1	1	2
Tuberculosis of respiratory system	...	...	...	19	7	26
Other forms of tuberculosis	...	...	...	1	1	2
Leprosy	...	...	...	—	—	—
Syphilis	...	...	...	1	—	1
Ankylostomiasis	...	...	...	—	—	—
Fever unspecified	...	...	...	21	24	45
Cancer	...	...	...	4	—	4
Beri-beri	...	...	...	2	2	4
Diseases of the heart	...	...	...	2	1	3
Other diseases of circulatory system	...	...	...	4	—	4
Diabetes	...	...	...	—	—	—
Pneumonia (all forms)	...	...	...	14	11	25
Other diseases of respiratory system	...	...	...	—	—	—
Diarrhœa and enteritis	...	...	...	12	6	18
Other diseases of digestive system	...	...	...	2	2	4
Convulsions	...	...	...	90	65	155
Diseases of nervous system and sense organs	...	...	...	—	—	—
Diseases of genito urinary system (non-venereal)	...	...	...	2	2	4
Diseases of pregnancy, child-birth and puerperal state	...	...	...	—	14	14
Premature birth and disease of early infancy	...	...	...	5	3	8
Old age	...	...	...	53	93	146
Violence (all forms)	...	...	...	13	3	16
Other causes (including unknown)	...	...	...	316	336	652
Total				572	578	1,150

APPENDIX V—continued

TABLE 3A

Causes of Deaths certified by Medical Practitioners, 1939

<i>Diseases</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
Malaria	1	1	2
Meningitis	1	1	2
Tetanus	—	—	—
Enteric fever	—	—	—
Dysentery	—	—	—
Septicæmia	1	—	1
Tuberculosis of respiratory system	5	—	5
Other forms of tuberculosis	1	1	2
Leprosy	—	—	—
Syphilis	—	—	—
Ankylostomiasis	—	—	—
Fever uncertified	—	—	—
Cancer	3	—	3
Beri-beri	—	1	1
Diseases of the heart	—	1	1
Other diseases of circulatory system	3	—	3
Diabetes	—	—	—
Pneumonia (all forms)	5	6	11
Other disease of respiratory	1	—	1
Diarrhœa and enteritis	2	1	3
Other diseases of digestive system	2	—	2
Convulsions	3	3	6
Diseases of nervous system and sense organs	1	—	1
Diseases of genito urinary system (non-venereal)	2	1	3
Diseases of pregnancy, child-birth and puerperal state	—	1	1
Premature birth and disease of early infancy	3	1	4
Old age	2	1	3
Violence (all forms)	10	3	13
Other causes (including unknown)	5	2	7
	<hr/> 51	<hr/> 24	<hr/> 75

APPENDIX V—continued

TABLE 4

Deaths grouped according to Age, Sex and Nationality

Deaths by age groups				Sex	Europeans	Eurasians	Chinese	Malays	Indians	Native Bornean Races other than Malays	Others	Total
0	..	..	{	M.	..	..	6	13	..	14	..	33
				F.	..	..	3	14	..	20	..	37
4 Weeks	..	..	{	M.	..	..	2	57	..	23	..	82
				F.	..	..	2	32	..	15	1	50
3 Months	..	..	{	M.	..	..	2	47	..	25	..	74
				F.	..	..	3	35	..	25	1	64
6 "	..	..	{	M.	..	..	2	27	..	9	..	38
				F.	..	..	3	24	..	18	1	46
1 Year	..	..	{	M.	..	..	7	29	..	37	..	73
				F.	..	..	3	37	1	37	1	79
5 Years	..	..	{	M.	..	..	2	5	..	15	..	22
				F.	..	..	1	6	..	17	..	24
10 "	..	..	{	M.	..	..	..	2	..	5	..	7
				F.	..	..	..	3	..	11	..	14
15 "	..	..	{	M.	..	..	1	10	..	4	..	15
				F.	..	..	1	2	..	5	..	8
20 "	..	..	{	M.	..	..	2	8	1	11	..	22
				F.	..	..	1	6	..	7	..	14
25 "	..	..	{	M.	..	..	2	6	1	2	..	11
				F.	..	..	2	11	..	14	..	27
30 "	..	..	{	M.	..	..	3	9	..	8	..	20
				F.	..	..	2	7	..	15	..	24
35 "	..	..	{	M.	..	..	3	7	1	2	1	14
				F.	..	..	..	8	..	9	..	17
40 "	..	..	{	M.	..	..	5	5	..	11	1	22
				F.	..	..	..	10	..	16	..	26
45 "	..	..	{	M.	..	..	4	7	..	7	2	20
				F.	..	..	..	7	..	5	..	12
50 "	..	..	{	M.	..	..	2	10	..	15	..	27
				F.	..	..	2	9	..	13	..	24
55 Years and over	..	..	{	M.	..	..	11	47	..	34	..	92
				F.	..	..	2	78	..	32	..	112
Total Deaths	..	{		M.	..	..	54	289	3	222	4	572
				F.	..	..	25	289	1	259	4	578
Total Deaths	..			M. F.	..	..	79	578	4	481	8	1,150

APPENDIX V—continued

TABLE 5
Infantile Mortality by Months

Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Total Births	Rate per 1,000 births
M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.		
13 11	14 13	12 20	10 10	9 12	17 13	24 26	25 19	31 23	30 12	22 14	20 24	227 197	1,830	232

TABLE 6

Deaths Registered as regards Certifications

Certified by Medical Practitioners ...	...	75
Certified by Registering Officers after death ...	...	423
Uncertified ...	...	652
Total ...	...	1,150

APPENDIX VI

LABORATORY RETURNS, 1939

(1) Blood :—

A. Films :—

	Brunei	Tutong	Temburong
(a) Benign tertian ...	104	25	2
(b) Quartan ...	24	1	2
(c) Sub-tertian ...	211	11	4
(d) Mixed infection ...	1	—	—
(e) Negative ...	1,434	109	48
Total ...	1,772	146	56

(2) Stool :—

B. Blood counts ...	339	—	—
(a) Ankylostoma duodenale ...	158	—	14
(b) Ascaris lumbricoides ...	1,108	291	31
(c) Mixed A.L.O. and A.D.O. ...	85	—	—
(d) T. trichiura ...	90	5	6
(e) Strongyloides stercoralis ...	9	—	—
(f) Trichomonas hominis ...	4	—	—
(g) Entamœba histolytica ...	7	—	—
(h) Entamœba coli ...	1	—	—
(i) Cysts of entamœba coli ...	1	—	—
(j) Hymenolepis nana ...	5	—	—
(k) Blood and pus cells ...	76	1	—
(l) Charcot-Leyden crystals ...	5	—	—
(m) Bacteria and Mucus ...	12	—	—
(n) Negative ...	975	387	12
Total ...	2,536	684	63

APPENDIX VI—continued

LABORATORY RETURNS, 1939—continued

(3) Sputum :—

			<i>Brunei</i>	<i>Tutong</i>	<i>Temburong</i>
(a) Tubercle bacilli	...	...	141	2	1
(b) Negative	...	...	448	1	7
			<hr/>	<hr/>	<hr/>
Total	...	...	589	3	8
			<hr/>	<hr/>	<hr/>

(4) Urine :—

(a) Blood, pus and organism	...	...	742	—	—
(b) Casts (all forms)	...	...	69	—	—
(c) Chemical test (various)	...	...	838	2	3
(d) Negative	...	...	733	35	26
			<hr/>	<hr/>	<hr/>
Total	...	...	2,382	37	29
			<hr/>	<hr/>	<hr/>

(5) Bacteriological examination of smears :—

(a) Gonococci	...	...	14	1	—
(b) Bacilli of Morax	...	...	49	—	—
(c) Koch Weeks bacilli	...	...	73	—	—
(d) Other bacteria	...	...	67	—	—
(e) Negative	...	...	112	—	—
			<hr/>	<hr/>	<hr/>
Total	...	...	305	1	—
			<hr/>	<hr/>	<hr/>

(6) Cerebro-spinal fluid smears :—

(a) Cell counts	...	...	11	—	—
(b) Negative	...	...	9	—	—
			<hr/>	<hr/>	<hr/>
Total	...	...	20	—	—
			<hr/>	<hr/>	<hr/>

APPENDIX VII

TABLE I

Record of Anopheline Larva within the Sanitary Board Area, Brunei

Months			A. bæzal	A. barbi-rostris	A. kochi	A. separatus	A. tessellatus	A. umbrosus	A. leucosphyrus	Total
January	..	..	20	51	62	56	12	22	..	223
February	..	..	..	30	15	25	..	..	..	70
March..	..	..	15	11	85	30	..	34	..	175
April ..	..	..	..	25	30	50	..	79	..	184
May ..	..	..	28	55	61	40	..	61	..	245
June ..	..	..	19	25	19	70	..	44	21	198
July ..	..	..	..	12	..	29	27	38	..	106
August	..	..	..	64	20	21	12	21	20	158
September	..	..	..	24	48	36	20	24	..	152
October	..	..	..	24	48	10	17	10	..	109
November	..	..	..	19	36	..	..	19	25	99
December	..	..	..	9	17	15	..	..	10	51
Total ..			82	349	441	382	88	352	76	1,770

TABLE 2

Breeding places of Anopheline Mosquitoes within the Sanitary Board Area, Brunei

Months			Drains	Wells	Pools	Swamps	Holes	Seepages	Ponds	Total
January	..	..	..	2	2	3	1	..	2	10
February	..	..	..	2	..	..	..	1	..	3
March..	..	..	2	2	2	..	..	2	..	8
April ..	..	..	3	2	1	..	..	1	..	7
May ..	..	..	1	2	5	1	..	1	1	11
June ..	..	..	2	2	5	..	..	1	1	11
July ..	..	..	3	2	2	1	..	1	..	9
August	..	..	..	2	6	1	1	1	..	11
September	..	..	3	3	2	1	..	2	..	11
October	..	..	4	..	3	..	..	2	..	9
November	..	..	3	..	2	..	..	1	..	6
December	..	..	1	2	1	..	..	1	..	5
Total ..			22	21	31	7	2	14	4	101

APPENDIX VII—continued

TABLE 3

Record of Anopheline Larva outside the Sanitary Board Area, Brunei

Months	A. kochi	A. barbi-rostris	A. leucos-phyrus	A. separatus	A. umbrosus	A. tessellatus	A. macalatus	A. karwari	A. seninesis	Total
January ..	197	93	43	59	23	..	..	..	..	415
February ..	60	54	17	..	..	..	..	..	..	131
March ..	79	79	45	..	89	..	..	..	..	292
April ..	61	108	20	24	21	..	..	..	..	234
May ..	84	36	20	68	57	23	13	..	..	301
June ..	40	132	15	10	21	20	..	15	..	253
July ..	47	25	27	..	22	..	7	..	6	134
August ..	124	30	51	20	7	..	..	..	..	232
September ..	49	35	14	35	..	..	..	..	..	133
October ..	10	11	..	32	17	..	..	..	..	70
November ..	..	25	..	27	13	13	..	..	..	78
December ..	15	28	..	10	..	..	..	..	..	53
Total ..	766	656	252	285	270	56	20	15	6	2,326

TABLE 4

Breeding places of Anopheline Mosquitoes outside the Sanitary Board Area, Brunei

Months	Drains	Holes	Wells	Pools	Swamps	Seepages	Rivers	Ponds	Streams	Padi Fields	Total
January ..	2	1	2	..	3	4	..	..	..	1	13
February ..	1	1	1	1	..	2	..	..	..	..	6
March ..	3	..	1	3	2	3	..	..	..	..	12
April ..	5	..	..	4	..	2	..	..	..	..	11
May ..	7	..	1	5	..	..	..	1	1	..	15
June ..	6	2	..	3	1	..	2	2	..	..	16
July ..	4	..	..	5	2	3	..	1	1	..	16
August ..	4	..	2	5	2	..	..	..	..	..	13
September ..	4	1	..	3	..	2	..	..	..	..	10
October ..	3	..	..	1	..	2	..	..	..	..	6
November ..	3	..	3	1	1	..	..	..	..	..	8
December ..	3	..	..	2	..	..	..	..	..	..	5
Total ..	45	5	10	33	11	18	2	4	2	1	131

APPENDIX VII—continued

TABLE 5

Record of Anopheline Larva, Kuala Belait

Months	A. bæzai	A. separatus	A. barbi-rostris	A. hyrcanus	A. umbrosus	A. novum-brosus	A. albotæ-nitus	A. brevi-pulpis	A. tessellatus	A. sundaicus	A. subpæctus	A. sinensis	A. annularis	A. kochi	Total
January ..	32	114	7	12	1	14	..	..	26	..	..	..	..	..	206
February ..	131	50	..	..	..	25	65	39	..	..	..	..	..	..	310
March ..	30	5	..	..	..	37	..	6	101	..	..	..	..	..	179
April ..	38	21	..	4	..	..	..	..	34	142	39	..	..	..	278
May ..	16	17	..	..	12	..	2	20	32	288	..	14	..	..	401
June ..	10	25	..	..	24	20	2	160	29	208	..	..	12	..	490
July ..	44	23	..	..	19	..	..	33	..	26	..	..	..	..	145
August ..	58	14	..	..	..	32	15	23	30	10	..	..	..	..	182
September ..	58	30	..	..	..	10	8	36	12	..	..	..	..	20	174
October ..	59	23	..	2	..	16	..	124	32	19	..	..	..	..	275
November ..	35	8	..	..	12	7	..	134	29	13	..	..	..	..	238
December ..	48	30	..	..	..	..	..	47	190	..	..	..	..	..	315
Total ..	559	360	7	18	68	161	92	622	515	706	39	14	12	20	3,193

TABLE 6

Breeding places of Anopheline Mosquitoes, Kuala Belait

Months	Wells	Pools	Streams	Drains	Ponds	Holes	Swamps	Total
January ..	1	2	2	..	..	..	11	16
February ..	..	..	3	2	..	..	14	19
March ..	1	..	..	1	1	..	3	6
April ..	2	..	..	..	7	..	3	12
May ..	1	..	2	..	8	1	2	14
June ..	..	..	..	1	14	1	12	28
July ..	..	..	..	..	1	..	9	10
August ..	..	1	..	2	..	..	9	12
September ..	..	1	..	2	1	..	9	13
October ..	..	..	1	..	9	..	8	18
November ..	1	..	..	2	2	..	11	16
December ..	1	..	..	3	..	..	7	11
Total ..	7	4	8	13	43	2	98	175

APPENDIX VIII

BRUNEI GOVERNMENT HOSPITALS

Return of Diseases and Deaths for the year 1939

Diseases	Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
<i>I.—Infectious and Parasitic Diseases</i>								
1. Typhoid fever
2. Paratyphoid fever
3. Typhus:—								
(1) Typhus exanthematicus
(2) Tropical typhus
(3) Japanese river fever
(4) Other rickettsia infections
4. Relapsing fever
5. Undulant fever
6. Small-pox
7. Measles	7	7	6	..	..	..	1
8. Scarlet fever
9. Whooping cough
10. Diphtheria
11. Influenza:—								
(1) With pneumonia
(2) With other respiratory complications
(3) Without respiratory complication	23	23	22	..	..	..	1
12. Cholera
13. Dysentery:—								
(1) Amœbic	2	2	2	..	..	..	..
(2) Bacillary	7	7	7	..	..	..	..
(3) Mixed
(4) Undefined or due to other causes
14. Plague:—								
(1) Bubonic
(2) Pneumonic
(3) Septicæmic
(4) Undefined
15. Erysipelas
16. Acute Poliomyelitis:—								
(1) Acute poliomyelitis
(2) Acute polioencephalitis
17. Encephalitis lethargica
18. Cerebro-spinal fever
19. Glanders
20. Anthrax
21. Rabies
22. Tetanus:—								
(1) Tetanus of the newly born
(2) Other forms of tetanus	1	1	1	..	..	..	..
23. Tuberculosis of the respiratory system	3	14	17	11	1	1	4	..
24. Tuberculosis of the central nervous system
25. Tuberculosis of the intestines or peritoneum
<i>Carried forward</i> ..	3	54	57	49	1	1	4	2

APPENDIX VIII—continued

Diseases	Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
<i>Brought forward</i> ..	3	54	57	49	1	1	4	2
26. Tuberculosis of the vertebral column	..	..	..	..	..	..	..	..
27. Tuberculosis of other bones and joints	..	1	1	..	..	..	..	1
28. Tuberculosis of the skin or subcutaneous tissue (lupus) ..	..	..	..	..	..	..	..	..
29. Tuberculosis of the lymphatic system	..	2	2	2	..	..	..	..
30. Tuberculosis of the genito-urinary system ..	..	..	..	..	..	..	..	..
31. Tuberculosis of other organs:—								
(1) Adrenal ..	..	..	..	..	..	..	..	..
(2) Other sites ..	1	1	2	1	..	..	1	..
32. Tuberculosis disseminated:—								
(1) Acute ..	..	..	..	..	..	..	..	..
(2) Chronic ..	..	..	..	..	..	..	..	..
(3) Not distinguished as acute or chronic ..	..	..	..	..	..	..	..	..
33. Leprosy ..	2	..	2	..	..	..	..	2
34. Syphilis:—								
(1) Primary ..	..	1	1	1	..	..	..	..
(2) Secondary ..	..	1	1	1	..	..	..	..
(3) Tertiary ..	..	..	..	..	..	..	..	..
(4) Hereditary ..	..	..	..	..	..	..	..	..
(5) Period not indicated ..	..	..	..	..	..	..	..	..
(6) Congenital syphilis ..	..	1	1	1	..	..	..	..
35. Other venereal diseases:—								
(1) Soft chancre ..	..	..	..	..	..	..	..	..
(2) Gonorrhœa and its complication ..	1	12	13	13	..	..	..	..
(3) Gonorrhœal ophthalmia ..	..	..	..	..	..	..	..	..
(4) Gonorrhœal arthritis ..	..	2	2	2	..	..	..	..
(5) Granuloma venereum ..	..	..	..	..	..	..	..	..
(6) Tropical bubo ..	..	2	2	2	..	..	..	..
36. Purulent infective septicæmia:—								
(1) Septicæmia ..	..	..	..	..	..	..	..	..
(2) Pyæmia ..	1	..	1	..	..	..	1	..
(3) Gas-gangrene ..	..	..	..	..	..	..	..	..
37. Fever unclassified ..	..	7	7	7	..	..	..	..
38. Malaria:—								
(1) Tertian (benign) ..	..	43	43	40	..	1	..	2
(2) Quartan ..	..	11	11	11	..	..	..	..
(3) Aestivo-autumnal (subtertian) ..	..	113	113	108	..	..	2	3
(4) Mixed infections ..	..	..	..	..	..	..	..	..
(5) Unclassified ..	..	3	3	3	..	..	..	..
(6) Cachexia ..	1	10	11	11	..	..	..	..
(7) Blackwater fever ..	..	1	1	1	..	..	..	..
39. Other diseases due to Protozoa:—								
(1) Yaws (framboesia) ..	..	9	9	9	..	..	..	..
(2) Spirochætosis icterohæmorrhagica ..	..	..	..	..	..	..	..	..
(3) Leishmaniasis (dermal) ..	..	..	..	..	..	..	..	..
(4) Kala-azar ..	..	..	..	..	..	..	..	..
(5) Other diseases ..	..	..	..	..	..	..	..	..
<i>Carried forward</i> ..	9	274	283	262	1	2	8	10

APPENDIX VIII—continued

Diseases			Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
<i>Brought forward</i> ..			9	274	283	262	1	2	8	10
40. Ankylostomiasis ..	..	..	1	34	35	34	..	..	..	1
41. Hydatid cysts ..	..	..	..	..	..	..	..	..	..	..
42. Other diseases due to helminths:—										
<i>Cestodes</i>										
(1) <i>Tænia solium</i> ..	..	..	..	..	..	..	..	..	..	..
(2) <i>Tænia saginata</i> ..	..	..	..	..	..	..	..	..	..	..
(3) Other cestodes ..	..	..	..	2	2	2	..	..	..	..
<i>Nematodes</i>										
(4) <i>Filaria</i> ..	..	..	..	..	..	..	..	..	..	..
(5) <i>Ascaris</i> ..	..	..	2	49	51	48	..	1	..	2
(6) <i>Trichuris trichiura</i> ..	..	..	..	..	..	..	..	..	..	..
(7) <i>Oxyuris vermicularis</i> ..	..	..	..	..	..	..	..	..	..	..
(8) <i>Dracunculus medinensis</i> ..	..	..	..	..	..	..	..	..	..	..
(9) <i>Schistosomum japonicum</i> ..	..	..	..	..	..	..	..	..	..	..
(10) <i>Clonorchis sinensis</i> ..	..	..	..	..	..	..	..	..	..	..
(11) Other helminths ..	..	..	..	..	..	..	..	..	..	..
43. (1) Sprue ..	..	..	..	..	..	..	..	..	..	..
(2) Actinomycosis ..	..	..	..	..	..	..	..	..	..	..
(3) Other mycotic infections excluding purely dermal mycosis ..	..	..	..	..	..	..	..	..	..	..
44. Other infectious or parasitic diseases:—										
(1) Vaccinia including post vaccinal encephalitis ..	..	..	..	..	..	..	..	..	..	..
(2) Other sequelæ of vaccination ..	..	..	..	..	..	..	..	..	..	..
(3) Rubella ..	..	..	..	..	..	..	..	..	..	..
(4) Varicella (chicken-pox) ..	..	..	..	..	..	..	..	..	..	..
(5) Mumps and its complications ..	..	..	..	10	10	10	..	..	..	..
(6) Dengue ..	..	..	..	1	1	1	..	..	..	..
(7) Melioidosis ..	..	..	..	..	..	..	..	..	..	..
(8) Myiasis ..	..	..	..	..	..	..	..	..	..	..
(9) Glandular fever ..	..	..	..	..	..	..	..	..	..	..
(10) Others ..	..	..	..	..	..	..	..	..	..	..
II.—Cancer and other Tumour										
45. Cancer or other malignant diseases of the buccal cavity and pharynx ..			..	..	..	..	..	..	..	..
46. Cancer or other malignant tumours of the digestive organs and peritoneum:—										
(1) Stomach ..	..	..	1	..	1	..	..	..	1	..
(2) Liver (primary) ..	..	..	..	2	2	..	..	..	2	..
(3) Other digestive organs ..	..	..	..	..	..	..	..	..	..	..
47. Cancer or other malignant tumours of the respiratory organs ..			..	..	..	..	..	..	..	..
<i>Carried forward</i> ..			13	372	385	357	1	3	11	13

APPENDIX VIII—continued

Diseases	Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
<i>Brought forward</i> ..	13	372	385	357	1	3	11	13
48. Cancer or other malignant tumours of the uterus	1	..	1	1	..	..	..	..
49. Cancer or other malignant tumours of other female genital organs ..	..	..	..	..	..	..	..	..
50. Cancer or other malignant tumours of the breast .. ..	..	..	..	..	..	..	..	..
51. Cancer or other malignant tumours of the male genito urinary organs ..	..	..	..	..	..	..	..	..
52. Cancer or other malignant tumours of the skin .. ..	..	..	..	..	..	..	..	..
53. Cancer or other malignant tumours of organs not specified .. ..	..	..	..	..	..	..	..	..
54. Tumours non-malignant:—								
(1) Female genital organs ..	..	..	..	..	..	..	..	..
(2) Of other sites .. ..	..	5	5	5	..	..	..	..
55. Tumours of undetermined nature:—								
(1) Female genital organs ..	..	..	..	..	..	..	..	..
(2) Other sites .. ..	..	..	..	..	..	..	..	..
 III.— <i>Rheumatism, Diseases of Nutrition and of Endocrine Glands and other General Diseases</i>								
56. Rheumatic Fever:—								
(1) With cardiac involvement ..	..	..	..	..	..	..	..	..
(2) Without cardiac involvement	1	..	1	1	..	..	..	..
57. Chronic rheumatism and osteoarthritis .. ..	..	..	..	..	..	..	..	..
58. Gout .. ..	..	..	..	..	..	..	..	..
59. Diabetes (not including diabetes insipidus) .. ..	..	1	1	1	..	..	..	..
60. Scurvy (including Barlow's disease) ..	..	1	1	1	..	..	..	..
61. (1) Beri-beri including epidemic dropsy	2	32	34	32	..	..	2	..
(2) Beri-beri associated with pregnancy or labour ..	..	..	..	..	..	..	..	..
62. Avitaminosis .. ..	..	..	..	..	..	..	..	..
63. Rickets .. ..	..	..	..	..	..	..	..	..
64. Osteomalacia .. ..	..	..	..	..	..	..	..	..
65. Diseases of the pituitary gland ..	..	..	..	..	..	..	..	..
66. Diseases of the thyroid and parathyroid glands:—								
(1) Simple goitre .. ..	..	1	1	1	..	..	..	..
(2) Exophthalmic goitre .. ..	..	2	2	2	..	..	..	..
(3) Myxœdema, cretinism .. ..	..	..	..	..	..	..	..	..
(4) Tetany .. ..	..	..	..	..	..	..	..	..
(5) Other disease of the thyroid glands .. ..	..	..	..	..	..	..	..	..
67. Diseases of the thymus .. ..	..	..	..	..	..	..	..	..
<i>Carried forward</i> ..	17	414	431	401	1	3	13	13

APPENDIX VIII—continued

Diseases	Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
<i>Brought forward</i> ..	17	414	431	401	1	3	13	13
68. Diseases of the adrenal glands (excluding tuberculosis) ..	..	..	..	..	..	..	..	..
69. Other general diseases:—								
(1) Acidosis ..	..	1	1	1	..	..	..	..
(2) Other diseases of metabolism ..	..	..	..	..	..	..	..	..
<i>IV.—Diseases of the Blood and Blood Forming Organs</i>								
70. Hæmorrhagic conditions:—								
(1) Purpura ..	..	..	..	..	..	..	..	..
(2) Hæmophilia ..	..	..	..	..	..	..	..	..
71. Anæmia and chlorosis:—								
(1) Pernicious anæmia ..	..	..	..	..	..	..	..	..
(2) Splenic anæmia ..	..	..	..	..	..	..	..	..
(3) Chlorosis ..	..	..	..	..	..	..	..	..
(4) Secondary anæmia ..	..	2	2	2	..	..	..	..
(5) Others ..	..	..	..	..	..	..	..	..
72. Leukæmia:—								
(1) Leukæmia ..	..	..	..	..	..	..	..	..
(2) Hodgkin's disease ..	..	..	..	..	..	..	..	..
73. Diseases of the spleen:—								
(1) Banti's disease ..	..	..	..	..	..	..	..	..
(2) Others (not including diseases of the spleen due to malaria or leukæmia) ..	..	..	..	..	..	..	..	..
74. Other diseases of the blood and blood forming organs ..	..	1	1	..	..	..	1	..
<i>V.—Chronic Poisoning</i>								
75. Alcoholism (acute or chronic) ..	..	..	..	..	..	..	..	..
76. Chronic poisoning by other organic substances:—								
(1) Opium ..	..	..	..	..	..	..	..	..
(2) Morphia, cocaine ..	..	..	..	..	..	..	..	..
(3) Others ..	..	..	..	..	..	..	..	..
77. Chronic poisoning by mineral substances:—								
(1) Lead poisoning ..	..	..	..	..	..	..	..	..
(2) Arsenical dermatitis ..	..	..	..	..	..	..	..	..
(3) Others ..	..	..	..	..	..	..	..	..
<i>VI.—Diseases of the Nervous System and Sense Organs</i>								
78. Encephalitis (not including encephalitis lethargica):—								
(1) Cerebral abscess ..	..	..	..	..	..	..	..	..
(2) Other forms of encephalitis ..	..	..	..	..	..	..	..	..
<i>Carried forward</i> ..	17	418	435	404	1	3	14	13

APPENDIX VIII—continued

Diseases	Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
<i>Brought forward</i> ..	17	418	435	404	1	3	14	13
79. Meningitis (not including tuberculous meningitis or cerebrospinal meningitis) ..	..	..	..	..	..	..	..	..
80. Tabes dorsalis (locomotor ataxia) ..	..	..	..	..	..	..	..	..
81. Other diseases of the spinal cord ..	..	2	2	..	..	..	2	..
82. Apoplexy and paralysis:—								
(1) Cerebral hæmorrhage ..	..	..	..	..	..	..	..	..
(2) Cerebral embolism ..	..	..	..	..	..	..	..	..
(3) Cerebral thrombosis ..	..	..	..	..	..	..	..	..
(4) Hemiplegia, cause not determined ..	..	..	..	..	..	..	..	..
(5) Other paralysis ..	..	..	..	..	..	..	..	..
83. General paralysis of the insane ..	..	..	..	..	..	..	..	..
84. Other forms of insanity:—								
(1) Dementia præcox ..	..	..	..	..	..	..	..	..
(2) Others ..	2	8	10	8	..	..	..	2
85. Epilepsy ..	1	..	1	1	..	..	..	..
86. Infantile convulsions (age under five years) ..	..	..	..	..	..	..	..	..
87. Other diseases of the nervous system:—								
(1) Chorea ..	..	..	..	..	..	..	..	..
(2) Neuritis and neuralgia ..	..	..	..	..	..	..	..	..
(3) Paralysis agitans ..	..	1	1	1	..	..	..	..
(4) Disseminated sclerosis ..	..	..	..	..	..	..	..	..
(5) Neurasthenia ..	..	..	..	..	..	..	..	..
(6) Hysteria ..	..	..	..	..	..	..	..	..
(7) Others ..	..	1	1	1	..	..	..	..
88. Diseases of the eye:—								
(1) Conjunctivitis ..	..	3	3	3	..	..	..	..
(2) Trachoma ..	..	2	2	2	..	..	..	..
(3) Corneal ulcer ..	..	1	1	..	1	..	..	..
(4) Other diseases of the eye ..	1	9	10	8	1	1	..	..
89. Diseases of the ear and or the mastoid sinus:—								
(1) Otitis externa ..	..	..	..	..	..	..	..	..
(2) Otitis media ..	..	..	..	..	..	..	..	..
(3) Mastoiditis ..	..	..	..	..	..	..	..	..
(4) Others ..	..	1	1	..	..	..	1	..
VII.—Diseases of the Circulatory System								
90. Pericarditis ..	..	..	..	..	..	..	..	..
91. Acute endocarditis:—								
(1) Malignant ..	..	..	..	..	..	..	..	..
(2) Others ..	..	..	..	..	..	..	..	..
92. Chronic endocarditis-valvular diseases:—								
(1) Aortic valve disease ..	..	..	..	..	..	..	..	..
(2) Mitral valve disease ..	..	..	..	..	..	..	..	..
(3) Aortic and mitral ..	..	..	..	..	..	..	..	..
(4) Others ..	..	..	..	..	..	..	..	..
<i>Carried forward</i> ..	21	446	467	428	3	4	17	15

APPENDIX VIII—continued

Diseases	Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
<i>Brought forward</i> ..	21	446	467	428	3	4	17	15
93. Diseases of the myocardium:—								
(1) Acute myocarditis ..	..	1	1	..	..	..	1	..
(2) Chronic myocardial degeneration ..	..	1	1	1	..	..	..	..
94. Diseases of the coronary arteries:—								
(1) Angina pectoris ..	..	..	..	..	..	..	..	..
(2) Coronary thrombosis ..	..	..	..	..	..	..	..	..
(3) Coronary sclerosis ..	..	..	..	..	..	..	..	..
95. Other diseases of the heart:—								
(1) Auricular fibrillation ..	..	..	..	..	..	..	..	..
(2) Heart block ..	..	..	..	..	..	..	..	..
(3) Others ..	..	..	..	..	..	..	..	..
96. Aneurysm:—								
(1) Aneurysm of aorta ..	..	..	..	..	..	..	..	..
(2) Aneurysm of other arteries ..	..	..	..	..	..	..	..	..
97. Arterio-sclerosis ..	..	2	2	1	..	..	..	1
98. Gangrene ..	..	..	..	..	..	..	..	..
99. Other diseases of the arteries ..	..	2	2	2	..	..	..	..
100. Diseases of the veins:—								
(1) Varicose veins ..	..	..	..	..	..	..	..	..
(2) Hæmorrhoids ..	..	3	3	3	..	..	..	..
(3) Phlebitis ..	..	..	..	..	..	..	..	..
(4) Thrombosis ..	..	1	1	..	..	..	1	..
(5) Others ..	..	..	..	..	..	..	..	..
101. Diseases of the lymphatic system:—								
(1) Lymphangitis ..	..	..	..	..	..	..	..	..
(2) Lymphadenitis ..	..	1	1	1	..	..	..	..
(3) Bubo (non-specified) ..	..	..	..	..	..	..	..	..
102. Abnormalities of blood pressure:—								
(1) High blood pressure ..	..	..	..	..	..	..	..	..
(2) Low blood pressure ..	..	..	..	..	..	..	..	..
103. Other diseases of the circulatory system:—								
(1) Epistaxis ..	..	..	..	..	..	..	..	..
(2) Others ..	..	..	..	..	..	..	..	..
VIII.—Diseases of the Respiratory System								
104. Diseases of the nasal fossæ and its annexa:—								
(1) Diseases of the nose ..	..	2	2	2	..	..	..	..
(2) Diseases of the accessory nasal sinuses ..	..	..	..	..	..	..	..	..
105. Diseases of the larynx:—								
(1) Laryngismus stridulus ..	..	..	..	..	..	..	..	..
(2) Laryngitis ..	..	..	..	..	..	..	..	..
(3) Other diseases of the larynx ..	..	1	1	1	..	..	..	..
<i>Carried forward</i> ..	21	460	481	439	3	4	19	16

APPENDIX VIII—continued

Diseases	Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
<i>Brought forward</i> ..	21	460	481	439	3	4	19	16
106. Bronchitis:—								
(1) Acute .. ..	..	..	..	..	..	..	..	..
(2) Chronic .. ..	..	..	..	..	..	..	..	..
(3) Not defined as acute or chronic .. ..	..	9	9	8	..	..	..	1
107. Broncho-pneumonia .. ..	..	..	..	..	..	..	..	..
108. Lobar-pneumonia .. ..	..	..	..	..	..	..	..	..
109. Pneumonia (not otherwise defined) ..	..	12	12	4	..	..	7	1
110. Pleurisy:—								
(1) Empyema	1	1	2	2	..	..	..	..
(2) Other pleurisy .. ..	..	..	..	..	..	..	..	..
(3) Spontaneous pneumo-thorax ..	..	1	1	1	..	..	..	..
111. Congestion and hæmorrhagic infarction of lung, etc.:—								
(1) Hypostatic congestion of lung ..	..	..	..	..	..	..	..	..
(2) Massive collapse .. ..	..	..	..	..	..	..	..	..
(3) Pulmonary embolism .. ..	..	..	..	..	..	..	..	..
(4) Others .. ..	..	1	1	1	..	..	..	..
112. Asthma .. ..	..	7	7	7	..	..	..	..
113. Pulmonary emphysema .. ..	..	..	..	..	..	..	..	..
114. Other diseases of the respiratory system:—								
(1) Chronic interstitial pneumonia (including occupational diseases of the lung) ..	..	..	..	..	..	..	..	..
(2) Gangrene of the lung .. ..	..	..	..	..	..	..	..	..
(3) Abscess of the lung .. ..	..	..	..	..	..	..	..	..
(4) Bronchiectasis .. ..	..	..	..	..	..	..	..	..
(5) Others .. ..	..	..	..	..	..	..	..	..
IX.—Diseases of the Digestive System								
115. Diseases of the buccal cavity, pharynx, etc.:—								
(1) Pyorrhœa .. ..	..	..	..	..	..	..	..	..
(2) Dental caries .. ..	..	..	..	..	..	..	..	..
(3) Stomatitis .. ..	..	..	..	..	..	..	..	..
(4) Ludwig's angina .. ..	..	..	..	..	..	..	..	..
(5) Diseases of the tonsils .. ..	..	3	3	3	..	..	..	..
(6) Others .. ..	..	..	..	..	..	..	..	..
116. Diseases of the œsophagus .. ..	..	..	..	..	..	..	..	..
117. Ulcer of the stomach or duodenum:—								
(1) Ulcer of the stomach .. ..	..	..	..	..	..	..	..	..
(2) Ulcer of the duodenum .. ..	..	2	2	2	..	..	..	..
118. Other diseases of the stomach:—								
(1) Gastritis .. ..	..	2	2	2	..	..	..	..
(2) Others .. ..	..	..	..	..	..	..	..	..
119. Diarrhœa and enteritis (under two years) .. ..	..	6	6	5	..	..	1	..
<i>Carried forward</i> ..	22	504	526	474	3	4	27	18

APPENDIX VIII—continued

Diseases	Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
<i>Brought forward</i> ..	22	504	526	474	3	4	27	18
120. Diarrhoea and enteritis (two years and over):—								
(1) Colitis	1	9	10	10	..	..	..	..
(2) Otherwise defined ..	..	..	..	..	..	..	..	..
121. Appendicitis .. ..	..	2	2	2	..	..	..	..
122. Hernia, Intestinal obstruction:—								
(1) Hernia .. ..	..	3	3	3	..	..	..	..
(2) Strangulated hernia ..	..	2	2	1	..	..	1	..
(3) Intestinal obstruction (including intussusception) ..	..	..	..	..	..	..	..	..
123. Other diseases of the intestines:—								
(1) Constipation, intestinal stasis ..	..	..	..	..	..	..	..	..
(2) Diverticulitis .. ..	..	..	..	..	..	..	..	..
(3) Others .. ..	..	5	5	5	..	..	..	..
124. Cirrhosis of liver (non-syphilitic):—								
(1) Alcoholic .. ..	..	..	..	..	..	..	..	..
(2) Not returned as alcoholic ..	..	2	2	1	..	..	1	..
125. Other diseases of the liver:—								
(1) Acute yellow atrophy .. ..	..	..	..	..	..	..	..	..
(2) Toxic hepatitis .. ..	..	..	..	..	..	..	..	..
(3) Amœbic abscess and hepatitis ..	..	2	2	1	1	..	..	..
(4) Others .. ..	..	..	..	..	..	..	..	..
126. Biliary calculi:—								
(1) With cholecystitis .. ..	..	..	..	..	..	..	..	..
(2) Without mention of cholecystitis .. ..	..	..	..	..	..	..	..	..
127. Other diseases of the gall bladder and ducts:—								
(1) Cholecystitis without record of calculi .. ..	..	..	..	..	..	..	..	..
(2) Others .. ..	..	7	7	7	..	..	..	..
128. Diseases of the pancreas (excluding diabetes mellitus) .. ..	..	1	1	1	..	..	..	..
129. Peritonitis, without stated cause ..	..	..	..	..	..	..	..	..
<i>X.—Diseases of the Genito-Urinary System (non-venereal)</i>								
130. Acute nephritis .. ..	..	..	..	..	..	..	..	..
131. Chronic nephritis .. ..	..	..	..	..	..	..	..	..
132. Nephritis (undefined as acute or chronic) .. ..	..	4	4	2	..	..	2	..
133. Other diseases of the kidney and annexa:—								
(1) Pyelitis .. ..	..	1	1	1	..	..	..	..
(2) Others .. ..	..	1	1	..	..	..	1	..
134. Calculi of the urinary passages:—								
(1) Calculi of the kidney and ureter .. ..	..	1	1	1	..	..	..	..
(2) Calculi of the bladder .. ..	..	..	..	..	..	..	..	..
(3) Calculi of unstated site .. ..	..	..	..	..	..	..	..	..
<i>Carried forward</i> ..	23	544	567	509	4	4	32	18

APPENDIX VIII—continued

Diseases	Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
<i>Brought forward</i> ..	23	544	567	509	4	4	32	18
135. Diseases of the bladder:—								
(1) Cystitis ..	..	2	2	2	..	..	..	..
(2) Others ..	..	..	..	..	..	..	..	..
136. Diseases of the urethra:—								
(1) Stricture ..	..	..	..	..	..	..	..	..
(2) Others ..	..	1	1	1	..	..	..	..
137. Diseases of the prostate ..	..	..	..	..	..	..	..	..
138. Diseases of the male genital organs:—								
(1) Epididymitis ..	..	..	..	..	..	..	..	..
(2) Orchitis ..	..	..	..	..	..	..	..	..
(3) Hydrocele ..	..	1	1	1	..	..	..	..
(4) Others ..	..	..	..	..	..	..	..	..
139. Diseases of the female genital organs:—								
(1) Diseases of the ovary ..	..	1	1	1	..	..	..	..
(2) Diseases of the fallopian tube ..	..	..	..	..	..	..	..	..
(3) Diseases of the parametrium ..	..	..	..	..	..	..	..	..
(4) Diseases of the uterus ..	..	..	..	..	..	..	..	..
(5) Diseases of the breast ..	..	1	1	1	..	..	..	..
(6) Other diseases of the female genital organs ..	..	4	4	4	..	..	..	..
<i>XI.—Conditions arising in Pregnancy, Childbirth and the Puerperal State</i>								
140. Post abortive sepsis:—								
(1) Septic abortion ..	..	..	..	..	..	..	..	..
141. Abortion (not returned as septic):—								
(1) Hæmorrhage following abortion ..	..	..	..	..	..	..	..	..
(2) Abortion without record of hæmorrhage ..	..	1	1	1	..	..	..	..
142. Ectopic gestation ..	..	..	..	..	..	..	..	..
143. Other accidents of pregnancy ..	..	..	..	..	..	..	..	..
144. Puerperal hæmorrhage:—								
(1) Placenta prævia ..	..	..	..	..	..	..	..	..
(2) Other puerperal hæmorrhage ..	..	..	..	..	..	..	..	..
145. Puerperal sepsis:—								
(1) Puerperal septicæmia ..	..	..	..	..	..	..	..	..
(2) Puerperal sepsis, not including septicæmia ..	..	..	..	..	..	..	..	..
146. Puerperal albuminuria and convulsions:—								
(1) Ante-partum eclampsia ..	..	..	..	..	..	..	..	..
(2) Intra-partum eclampsia ..	..	..	..	..	..	..	..	..
(3) Post-partum eclampsia ..	..	..	..	..	..	..	..	..
(4) Albuminuria of pregnancy ..	..	1	1	1	..	..	..	..
(5) Pyelitis of pregnancy ..	..	1	1	1	..	..	..	..
(6) Otherwise defined ..	..	2	2	2	..	..	..	..
<i>Carried forward</i> ..	23	559	582	524	4	4	32	18

APPENDIX VIII—continued

Diseases	Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
<i>Brought forward</i> ..	23	559	582	524	4	4	32	18
147. Other toxæmias of pregnancy:—								
(1) Hyperemesis gravidarum ..	..	1	1	1	..	..	..	..
(2) Others ..	..	1	1	1	..	..	..	..
148. Puerperal phlegmasia embolism:—								
(1) Puerperal phlegmasia ..	..	..	..	..	..	..	..	..
(2) Puerperal embolism ..	..	..	..	..	..	..	..	..
149. Conditions associated with labour:—								
(1) Normal labour ..	..	44	44	43	..	..	..	1
(2) Abnormal labour ..	..	..	..	..	..	..	..	..
(3) Labour complicated with intercurrent disease ..	..	..	..	..	..	..	..	..
(4) Accidents of child birth ..	..	..	..	..	..	..	..	..
150. Other or unspecified conditions of the puerperal state:—								
(1) Puerperal insanity ..	..	..	..	..	..	..	..	..
(2) Puerperal diseases of the breast ..	..	..	..	..	..	..	..	..
(3) Others ..	..	..	..	..	..	..	..	..
 XII.— <i>Diseases of the Skin and Cellular Tissues</i>								
151. Carbuncle, boil ..	..	1	1	1	..	..	..	..
152. Cellulitis, acute abscess:—								
(1) Cellulitis ..	..	4	4	4	..	..	..	..
(2) Acute abscess ..	..	21	21	18	1	..	1	1
(3) Otherwise defined ..	..	..	..	..	..	..	..	..
153. Other diseases of the skin and annexa:—								
(1) Ulcers ..	..	12	13	13	..	..	..	..
(2) Dermal mycoses ..	..	2	2	2	..	..	..	..
(3) Herpes ..	..	1	1	1	..	..	..	..
(4) Scabies ..	..	9	9	8	..	..	..	1
(5) Others ..	..	14	15	14	..	1	..	..
 XIII.— <i>Diseases of the Bones and Organs of Locomotion</i>								
154. Acute infective osteomyelitis and periostitis ..	..	5	5	5	..	..	..	..
155. Other diseases of the bones ..	1	3	4	4	..	..	..	..
156. Diseases of the joints and other organs of locomotion:—								
(1) Diseases of the joints ..	..	2	2	2	..	..	..	..
(2) Diseases of the other organs of locomotion ..	..	..	..	..	..	..	..	..
<i>Carried forward</i> ..	26	679	705	641	5	5	33	21

APPENDIX VIII—continued

Diseases	Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
<i>Brought forward</i> ..	26	679	705	641	5	5	33	21
XIV.—Congenital Malformations								
157. Congenital malformations:—								
(1) Congenital hydrocephalus ..	..	..	..	..	..	..	..	..
(2) Spina bifida and mening- ocele ..	..	..	..	..	..	..	..	..
(3) Congenital malformation of the heart ..	..	1	1	1	..	..	..	..
(4) Monstrositis ..	..	..	..	..	..	..	..	..
(5) Congenital hypertrophic, pyloric stenosis ..	..	..	..	..	..	..	..	..
(6) Cleft palate, harelip ..	..	1	1	1	..	..	..	..
(7) Imperforate anus ..	..	..	..	..	..	..	..	..
(8) Other congenital malforma- tions ..	..	..	..	..	..	..	..	..
XV.—Diseases of Early Infancy								
158. Congenital debility ..	..	..	..	..	..	..	..	..
159. Premature birth ..	..	1	1	1	..	..	..	..
160. Injury at birth ..	..	..	..	..	..	..	..	..
161. Other diseases peculiar to early infancy:—								
(1) Atelectasis ..	..	..	..	..	..	..	..	..
(2) Icterus neonatorum ..	..	..	..	..	..	..	..	..
(3) Affections of the umbilicus ..	..	..	..	..	..	..	..	..
(4) Pemphigus neonatorum ..	..	..	..	..	..	..	..	..
(5) Others ..	1	8	9	7	..	..	1	1
XVI.—Conditions Associated with Old Age								
162. (1) Senile dementia ..	1	..	1	..	..	..	1	..
(2) Other forms of senile decay ..	..	..	..	..	..	..	..	..
XVII.—Affections Produced by External Causes								
163. Suicide, or attempted suicide, by poisoning (including corrosive poisoning) ..	..	..	..	..	..	..	..	..
164. Suicide, or attempted suicide, by gas poisoning ..	..	..	..	..	..	..	..	..
165. Suicide, or attempted suicide, by hanging or strangulation ..	..	..	..	..	..	..	..	..
166. Suicide, or attempted suicide, by drowning ..	..	..	..	..	..	..	..	..
<i>Carried forward</i> ..	28	690	718	651	5	5	35	22

APPENDIX VIII—continued

Diseases	Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
<i>Brought forward</i> ..	28	690	718	651	5	5	35	22
167. Suicide, or attempted suicide, by firearms
168. Suicide, or attempted suicide, by cutting or piercing instruments
169. Suicide, or attempted suicide, by crushing
170. Suicide, or attempted suicide, by jumping from a height
171. Suicide, or attempted suicide, by other means
172. Infanticide
173. Assault or homicide, by firearms
174. Assault or homicide, by cutting or piercing instruments
175. Assault or homicide, by other means	1	1	1	..	..	..	..
176. Attacks by venomous animals:—								
(1) Snake bite
(2) Insect bite	1	1	1	..	..	..	..
(3) Others	1	1	1	..	..	..	..
177. Food poisoning
178. Accidental absorption of irrespirable or poisonous gas
179. Other acute accidental poisoning
180. Injuries due to conflagration
181. Accidental burns (conflagration excepted):—								
(1) Burns by fire
(2) Scalds	4	4	4	..	..	..	..
(3) Burns by corrosive substances
(4) Dermatitis due to exposure to sun	7	7	7	..	..	..	..
(5) Dermatitis due to exposure to other forms of radiation
182. Accidental mechanical suffocation
183. Accidental immersion or drowning
184. Accidental injury by firearms
185. Accidental injury by cutting or piercing instruments
186. Accidental injury by fall, crushing, etc.:—								
(1) By fall	9	9	7	..	..	1	1
(2) By machinery
(3) By motor vehicles
(4) By railway vehicles
(5) By other means	6	6	6	..	..	..	..
187. Cataclysm (tidal waves, cyclones, etc.):—								
188. Injury by animals (except poisoning by venomous animals)
<i>Carried forward</i> ..	28	619	747	678	5	5	36	23

APPENDIX VIII—continued

Diseases	Remained	Admitted	Total	Discharged	Transferred	Absconded	Died	Remaining
<i>Brought forward</i> ..	28	719	747	678	5	5	36	23
189. Hunger or thirst
190. Excessive cold
191. Excessive heat
192. Lightning
193. Electricity
194. Other unstated forms of violence:—								
(1) Inattention at birth
(2) Others
195. Violence of an unstated nature (<i>i.e.</i> suicidal, homicidal, or accidental).
196. Wounds	2	21	23	23	..	..	..	..
197. Execution of civilians by belligerent armies
198. Execution
 XVIII.— <i>Ill-defined Conditions</i>								
199. Sudden death (cause unknown)
200. Cause of death unstated or ill-defined
201. Diseases not included in this classi- fication which have caused no deaths
202. Malingering
203. Cases admitted to hospital for obser- vation as to mental condition
204. Cases admitted for observation (not mental)	9	9	9	..	..	..	..
205. Persons accompanying patients	5	5	5	..	..	..	..
206. General debility	6	6	6	..	..	..	..
Grand Total ..	30	760	790	721	5	5	36	23

APPENDIX IX

RETURN OF OPERATIONS PERFORMED DURING 1939

Major Operations		Number	RESULT		Died
			Cured	Relieved	
A.—General :					
Appendicectomy	2	2	—
Amputation thigh	2	2	—
Congenital right inguinal hernia	1	1	—
Radical cure inguinal hernia	3	3	—
Gastro enterostomy	2	2	—
Repair strangulated hernia	1	—	1
Debridement extensive 2nd degree burn	1	—	1
Rib re-section	2	—	2
Removal of piles	1	1	—
Repairing hare lip	1	1	—
B.—Special :					
(a) Ear, nose and throat :—					
Mastoidectomy	1	—	1
Cataract extraction	1	—	1
(b) Gynæcological :—					
Oophorectomy and appendicectomy	1	1	—
Stenosis of vagina	1	1	—
Repair prolapse of uterus and amputation of cervix	1	1	—
Minor Operations					
A.—General :					
Suture of wounds	118	118	—
Incision of suppuration	64	64	—
Circumcision	32	32	—
Removal of cysts, etc.	28	28	—
Removal of foreign body	17	17	—
Reduction of simple fractures	12	12	—
Reduction of compound fracture humerus	1	1	—
Exploring chest, etc.	6	6	—
Lumbar puncture	5	5	—
Paracentesis abdominis	2	1	1
Needling hæmatoma	1	1	—
Injection hæmorrhoids	1	1	—
Paracentesis hydrocele	2	2	—
Periosteal hæmatoma	1	1	—
Repair syndactylism of hand	1	1	—
Removal vesical calculus	1	1	—
Reduction dislocation of mandible	1	1	—
Sequestrectomy (osteomyelitis mandible)	2	2	—
Cystoscopy	1	—	1
Sigmoidoscopy	1	1	—
B.—Special :					
(a) Ear, eye, nose and throat :—					
Repairing ear lobe	1	1	—
Removal of foreign body in eye	1	1	—
(b) Gynæcological :—					
Repair perineal tear	1	1	—
(c) Dental :—					
Incision alveolar abscess	5	5	—
Extraction	200	200	—
Grand Total		...	526	518	6
					2

APPENDIX X

ANNUAL RETURN OF OUTPATIENTS, BRUNEI GOVERNMENT HOSPITAL, 1939

<i>Disease</i>		<i>Brunei</i>	<i>Tutong</i>	<i>Temburong</i>
Infectious disease :				
(a) Malaria (all forms) ...	...	817	131	88
(b) Yaws (all forms) ...	...	51	7	55
(c) Chicken pox ...	...	9	—	7
(d) Mumps ...	...	13	3	1
(e) Measles ...	...	4	6	—
(f) Dysentery :—				
(1) Amoebic ...	...	2	—	—
(2) Bacillary ...	...	2	1	—
(g) Tuberculosis :				
(1) Pulmonary ...	...	29	3	1
(2) Other ...	...	5	—	12
(h) Pneumonia (all forms) ...	...	6	—	1
(i) Dengue ...	...	—	—	—
(j) Filariasis ...	...	—	—	—
General disease :				
(a) Avitaminosis ...	...	—	—	—
(b) Beri-beri ...	...	51	10	20
(c) Malnutrition ...	...	—	—	—
(d) Anæmia ...	...	64	15	17
Venereal disease :				
(a) Gonorrhœa (all forms) ...	...	17	1	—
(b) Syphilis (all forms) ...	...	18	—	—
(c) Other ...	...	5	—	—
Helminthic infection :				
(a) Ascariasis ...	...	1,086	816	108
(b) Ankylostomiasis ...	...	26	—	9
(c) Other ...	...	2	—	—
Respiratory system ...	...	1,338	568	213
Circulatory disease :				
(a) Myocarditis ...	...	—	—	—
(b) Heart failure ...	...	—	—	—
(c) Mitral stenosis ...	...	—	—	—
(d) Other ...	...	10	—	—
Gastro-intestinal disease :				
(a) Gastric ulcer ...	...	—	—	—
(b) Duodenal ulcer ...	...	1	—	—
(c) Other ...	...	2,051	610	257
Nervous system ...	...	391	167	68
Genito-urinary (non-venereal) ...	...	39	2	3
Disease of women :				
(a) Abortion ...	...	—	1	—
(b) Amenorrhœa ...	...	—	—	1
(c) Dysmenorrhœa ...	...	—	—	—
(d) Menopause ...	...	—	—	—
(e) Metrorrhagia ...	...	—	—	—
(f) Salpingitis ...	...	—	—	—
(g) Fibroid of uterus ...	...	—	—	—
(h) Other ...	...	1	1	3
Ear, eye, nose and throat disease ...	...	699	39	65
Violence (all forms) ...	...	1,824	295	207
Diseases of skin, etc., etc. ...	...	3,970	2,378	852
		12,531	5,054	1,988
Total number of attendances ...	...	25,914	6,192	3,408

APPENDIX XI
METEOROLOGY, 1939

TABLE I

Mean room Temperature at Brunei, Tutong and Temburong Hospitals

Month	BRUNEI			TUTONG			TEMBURONG		
	Maxi- mum	Mini- mum	Range	Maxi- mum	Mini- mum	Range	Maxi- mum	Mini- mum	Range
January ..	85.94	75.26	10.68	85.61	74.51	11.10	86.45	74.87	11.58
February ..	83.86	74.21	9.65	83.71	73.71	10.00	84.82	73.78	11.04
March ..	86.54	75.29	11.25	86.00	74.21	11.79	87.29	74.19	13.10
April ..	87.20	76.73	10.47	86.01	75.00	11.01	87.73	75.43	12.30
May ..	86.27	76.45	9.82	87.01	75.21	11.80	87.48	74.96	12.52
June ..	86.80	76.07	10.73	87.30	74.81	12.49	87.70	75.16	12.54
July ..	88.39	75.90	12.49	88.21	75.01	13.20	88.39	74.93	13.46
August ..	86.94	75.23	11.71	87.01	74.51	12.50	87.64	74.80	12.84
September ..	84.80	76.00	8.80	86.40	74.51	11.89	87.50	75.36	12.14
October ..	86.06	75.23	10.83	84.71	74.11	10.60	86.74	75.19	11.55
November ..	86.70	75.57	11.13	85.51	74.41	11.10	86.73	74.30	12.43
December ..	84.26	75.00	9.26	83.40	73.50	9.90	84.70	75.09	9.61
Mean ..	86.15	75.58	10.57	85.91	74.45	11.45	86.93	74.84	12.09

TABLE 2

Monthly Rainfall at Nine Stations

Month	BRUNEI DISTRICT					TEMBURONG DISTRICT			BELAIT DIS- TRICT
	Government Hospital Brunei Town	Subok	Gadong	Kumbang Pasang	Agricultural Station, Kilanas	Labu	Biang	Batu Apoi	Kuala Belait (The British Malayan Pet. Company)
January ..	6.56	6.61	4.92	5.14	4.71	14.52	15.17	18.43	7.55
February ..	8.31	9.35	5.75	5.96	4.50	11.95	17.57	26.38	6.40
March ..	2.16	4.61	1.35	1.44	1.11	7.50	10.00	14.09	4.74
April ..	7.87	6.75	8.01	7.25	8.05	16.41	27.41	27.00	7.23
May ..	7.15	6.87	5.79	8.06	7.39	17.95	12.34	6.87	5.16
June ..	11.05	10.09	11.18	9.80	11.12	15.38	16.46	17.12	8.16
July ..	4.48	3.59	4.03	2.86	6.13	8.25	7.50	6.00	2.06
August ..	10.81	4.73	9.83	10.35	10.51	11.16	13.14	18.68	12.81
September ..	11.76	13.99	12.81	12.10	7.25	16.32	15.36	15.62	9.84
October ..	9.86	11.53	9.37	11.26	10.23	18.75	27.73	33.40	11.49
November ..	10.35	6.50	10.20	8.49	10.80	19.40	20.00	27.27	11.99
December ..	26.98	23.50	27.22	26.03	27.14	21.53	29.48	30.88	24.71
Total ..	117.34	108.12	110.46	108.74	108.94	179.12	212.16	241.74	112.14



